

ABSTRACT

A network management system is provided that allows a user to configure multiple devices according to a consistent set of policies. The system includes a device learning module that can read configuration data from a network device and automatically match
5 that configuration data to existing policies and components of policies within the system. The device learning module also identifies unknown configuration data, which does not match any existing policy. The system further includes a grammar builder that can parse the unknown configuration data and construct a component or policy from the unknown data, by matching the unknown data to a grammar of configuration commands for the
10 network device. The system also provided auditing capabilities, where policies are compared to running network configurations, and differences are identified.